Subject: passing multiple keywords to subroutines
Posted by David Ritscher on Thu, 21 Jan 1999 08:00:00 GMT
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It's often desirable to redefine a function, and then have this new function behave almost like the original function. To cook up an example, let's say I need a new plot function, that plots the x-axis as .001 units:

```
pro myplot, x
plot, findgen(n_elements(x) * 0.001), x
return
end
```

It would now be great to be able to pass any and all possible keywords into this new plotting function, so I might call it as:
myplot, x, title='test', linestyle=3

In IDL, this can be done by including all possible keywords (rather tedious!) In PV-Wave, it's almost impossible, since it is not possible to pass in an undefined keyword:

(I have not defined the variable 'color' here:)
```
WAVE> plot, [1,5], color=color
% PLOT: Variable is undefined: COLOR.
% Execution halted at $MAIN$   (PLOT).
```

This same command works fine in IDL, and has the appropriate behavior (Here, with 'color' undefined, it behaves exactly the same as if the keyword was not specified).

Thus in IDL it is possible to define my new function along these lines:
```
pro myplot, x, color=color, linestyle=linestyle, ynozero=ynozero, $
  noclip=noclip, yrange=yrange,
  ...
```
As I say, this becomes rather tedious.

Does anyone see a simpler way to handle this sort of thing? It seems to me that that two things are needed:
1. both companies need to add a mechanism to handle keywords that will be passed on to subroutines, which might take on a form like the following:

```
pro pass_keywords=pass_keywords  myplot, x
plot, x, pass_keywords=pass_keywords
```

   where I can now call 'myplot' with extra keywords:
myplot, x, linestyle=3

2. The bugs in PV-Wave have to be fixed, such that undefined keywords
   can be handled by every function.

Am I missing a better way to handle these issues?

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